PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-062148

(43)Date of publication of application : 04.03.1994

(51)Int.Cl. H04M 11/00
H04N 1/32

(21)Application number : 04-231534

(22)Date of filing : 07.08.1992

(71)Applicant : RICOH CO LTD

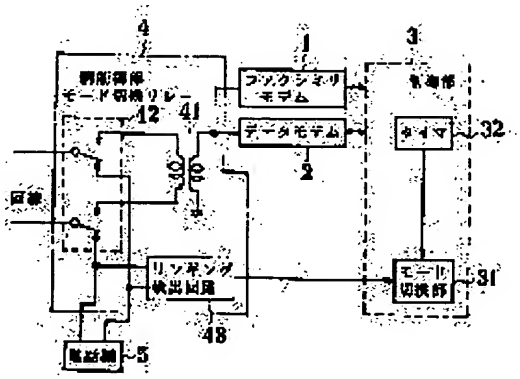
(72)Inventor : KAMIJO EIJI

(54) COMPOSITE TERMINAL EQUIPMENT

(57)Abstract:

PURPOSE: To simplify operator's operation by switching the mode to the telephone mode in the case that a call signal of facsimile communication or a reception request signal of data communication is not detected over a prescribed time after line connection.

CONSTITUTION: With respect to the composite terminal equipment provided with the facsimile communication function, the data communication function, and the telephone function, a facsimile modem 1 and a data modem 2 are connected to a control part 3 and a network control part 4, and the facsimile MODEM 1 and the data modem 2 are connected to a line through a mode switching relay 42 of the network control part 4. When the ringing signal from the line is detected by a ringing detecting circuit 43, a mode switching part 31 switches the mode relay 42 to the side of the facsimile modem 1 and the switching data modem 2. If the call signal of facsimile communication or the reception request signal of data communication is not sent though the prescribed time elapses, a timer 32 of the control part 3 is operated to switch the mode switching part 31 to the telephone mode, and the mode switching relay 42 is switched to the side of an initially set telephone set 5.



LEGAL STATUS

[Date of request for examination]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application] This invention relates to the change of the complex-terminal equipment which has facsimile communication facility, data communication facility, and a telephone function, especially the receive mode.
[0002]
[Description of the Prior Art] In facsimile apparatus or a Data Terminal Equipment, when there is reception, the approach of judging automatically FAKUSHIMIRIMO-DO, telephone mode and data communication mode, and telephone mode, and switching them is used (JP,58-120371,A, JP,49-98503,A).
[0003]
[Problem(s) to be Solved by the Invention] The complex-terminal equipment which has facsimile communication facility, data communication facility, and a telephone function will come to be used in recent years, and it will be necessary to switch automatically the three modes, FAKUSHIMIRIMO-DO, data communication mode, and telephone mode, in addition to the automatic switchover in FAKUSHIMIRIMO-DO, an automatic change-over in telephone mode and data communication mode, and telephone mode.
[0004] It is made in order for this invention to satisfy this demand, and it aims at obtaining the complex-terminal equipment which switches automatically the three modes, FAKUSHIMIRIMO-DO, data communication mode, and telephone mode, with an easy configuration.
[0005]
[Means for Solving the Problem] The complex-terminal equipment concerning this invention has facsimile communication facility, data communication facility, and a telephone function, and is characterized by to have the modem which distinguishes the arrival signal of facsimile communication, and the timer which switches ** to telephone mode when [at which the call signal CNG of facsimile communication or the request-to-receipt signal ENQ of data communication is not detected even if it carries out fixed time amount progress] the arrival signal of data communication is able to be beforehand determined as a distinction modem after a line connection.
[0006] Moreover, when it has the modem of the single modem which distinguishes the arrival signal of facsimile communication, and the arrival signal of data communication, and it has the timer which has the time zone which detects the call signal CNG of facsimile communication, and the time zone which detects the request-to-receipt signal ENQ of data communication and the call signal CNG of facsimile communication or the request-to-receipt signal ENQ of data communication is not detected in each time zone after a line connection, it is characterized by switching to telephone mode.
[0007]
[Function] In this invention, after a circuit is connected and switching to FAKUSHIMIRIMO-DO and data communication mode, when not detecting the call signal CNG of facsimile communication, or the request-to-receipt signal ENQ of data communication within fixed time amount, a circuit is

automatically switched to telephone mode.
[0008]
[Example] Drawing 1 is the whole one example block diagram of this invention. As shown in drawing, V27ter, the facsimile modem 1 of V29 and V21, and the data modem 2 of V26bis are at a control section 3 and the network control section 4, and the complex-terminal equipment which has facsimile communication facility, data communication facility, and a telephone function is connected. The facsimile modem 1 and the data modem 2 are connected with the Rhine transformer 41 of the network control section 4 through the mode change-over relay 42 at the circuit, as shown in the partial block diagram of drawing 2 . The ringing detector 43 is connected with telephone 5 at one change-over section of this mode change-over relay 42.
[0009] A control section 3 has the mode change-over section 31 and the timer 32 which were connected to the ringing detector 43. The existence of a manuscript or the recording paper and the positional information under those conveyances detect as the read station 5 which reads the transmitting manuscript of facsimile to this control section 3, and is changed into an electrical signal, the Records Department 6 which prints the incoming correspondence and the data-communication screen of facsimile, and the device section 7 which has the function of a manuscript and the recording paper of feed conveyance, and a control unit 10 and a display 11 are connected with the sensor section 8 which gives information required for control of the device section 7, and the loudspeaker 9 which calls an operator.
[0010] The complex-terminal equipment constituted as mentioned above explains the actuation at the time of reception with reference to the sequence diagram of drawing 3 .
[0011] In the usual condition, if it connects with the ringing detector 43 side and a ringing signal comes from a circuit, the mode change-over relay 42 of the network control section 4 will detect the signal in the ringing detector 43, and will be transmitted to a control section 3. The mode change-over section 31 of a control section 3 switches the mode change-over relay 42 of the network control section 4 to a facsimile modem 1 and data modem 2 side using the information. If the call signal CNG of facsimile communication or the request-to-receipt signal ENQ of data communication is sent from a call origination side as shown in the sequence diagram of drawing 3 when the mode change-over relay 42 is switched to a facsimile modem 1 and data modem 2 side, when the call signal CNG of facsimile communication is sent, it will answer by CED and DIS through the facsimile modem 1, and facsimile communication will be performed. Moreover, when the request-to-receipt signal ENQ of data communication is sent, it answers by acknowledge ACK 0 through a data modem 2, and data communication is performed.
[0012] fixed time amount T beforehand defined on the other hand after switching the mode change-over relay 42 to the facsimile modem 1 and data modem 2 side -- for example, -- even if 6 seconds pass -- either the call signal CNG of facsimile communication, or the request-to-receipt signal ENQ of data communication -- although -- when not sent, the timer 32 of a control section 3 operates and the mode change-over section 31 is switched to telephone mode. If the mode change-over section 31 is switched to telephone mode, it will be switched to the direction of the telephone 5 which was having the mode change-over relay 42 of the network control section 4 initialized, and will start a message with telephone 5.
[0013] Thus, after a circuit is connected, when there is not the call signal CNG of facsimile communication or the request-to-receipt signal ENQ of data communication into predetermined time, it can switch to telephone mode automatically.
[0014] In addition, although the above-mentioned example explained the case where the facsimile modem 1 and a data modem 2 were formed separately, as shown in drawing 4 , as well as the above-mentioned example when V27ter, V29 and V21, and modem 1with single V26bis a perform facsimile communication and data communication, it can switch the receive mode.
[0015] In this case, since the call signal CNG of facsimile communication and the request-to-receipt signal ENQ of data communication are undetectable to coincidence, it shifts to a timer 32 with the time zone which detects the call signal CNG of facsimile communication, and the time zone which detects

the request-to-receipt signal ENQ of data communication, and prepares in it. And what is necessary is just to switch to telephone mode, when not detecting the call signal CNG of facsimile communication, and the request-to-receipt signal ENQ of data communication in each time zone after a circuit is connected.

[0016]

[Effect of the Invention] Since it switched the circuit to telephone mode automatically when not detecting the call signal CNG of facsimile communication, or the request-to-receipt signal ENQ of data communication within fixed time amount, after the circuit was connected and switching this invention to FAKUSHIMIRIMO-DO and data communication mode, as explained above, it can switch the receive mode easily and can simplify actuation of an operator.

[Translation done.]

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EFFECT OF THE INVENTION

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OPERATION

[Function] In this invention, after a circuit is connected and switching to FAKUSHIMIRIMO-DO and data communication mode, when not detecting the call signal CNG of facsimile communication, or the request-to-receipt signal ENQ of data communication within fixed time amount, a circuit is automatically switched to telephone mode.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the whole example block diagram of this invention.
[Drawing 2] They are the control section of the above-mentioned example, a modem, and the partial block diagram of a network control section.
[Drawing 3] It is the sequence diagram showing actuation of the above-mentioned example.
[Drawing 4] They are the control section of other examples, a modem, and the partial block diagram of a network control section.
[Description of Notations]
1 Facsimile Modem
2 Data Modem
3 Control Section
4 Network Control Section
5 Telephone
31 Mode Change-over Section
32 Timer
42 Mode Change-over Relay

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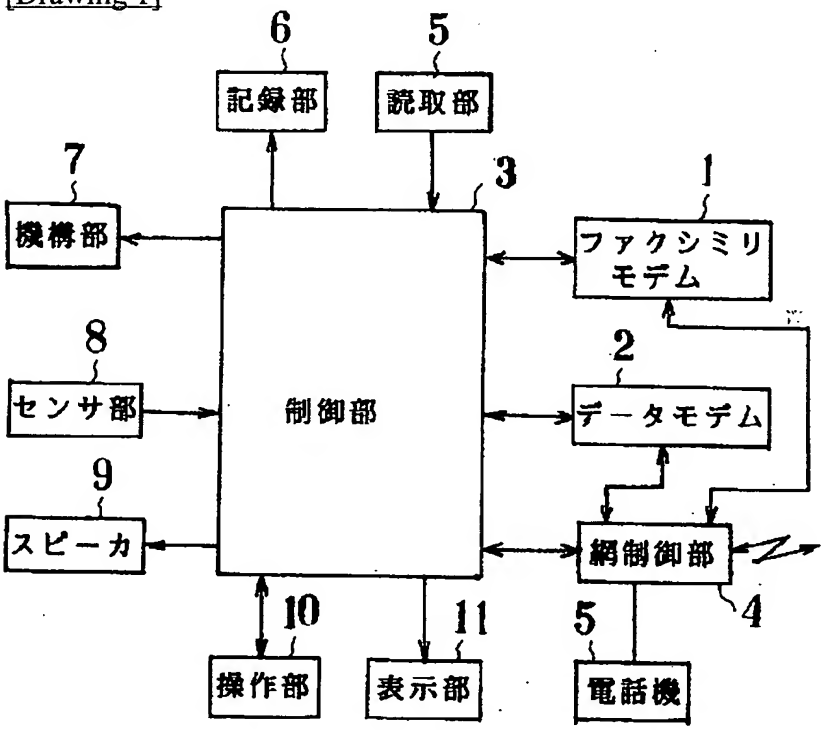
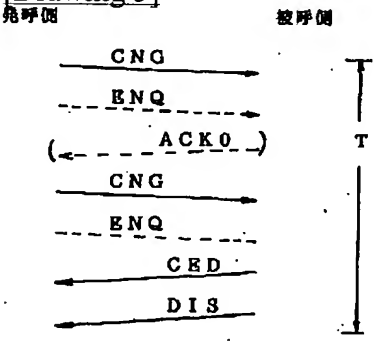
DRAWINGS

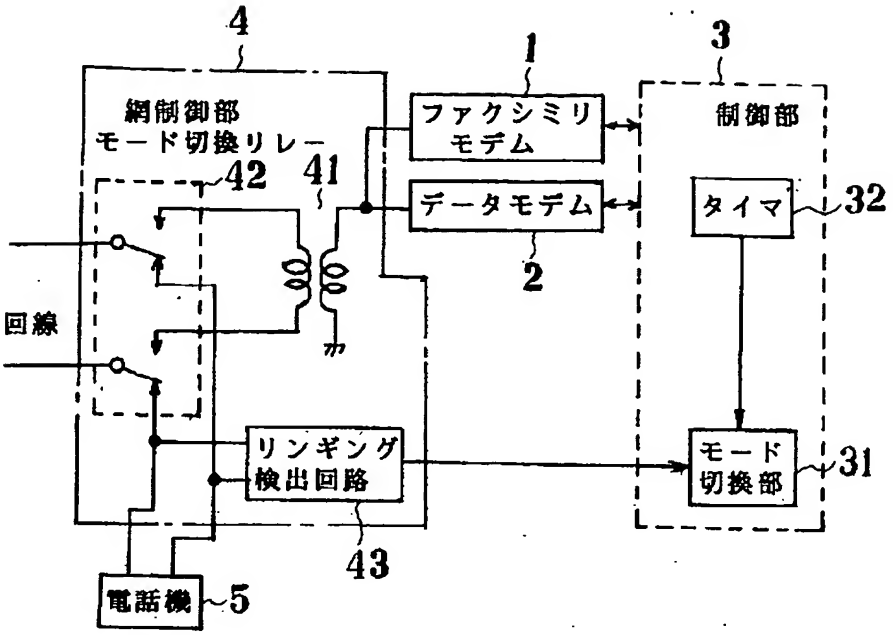
[Drawing 1]



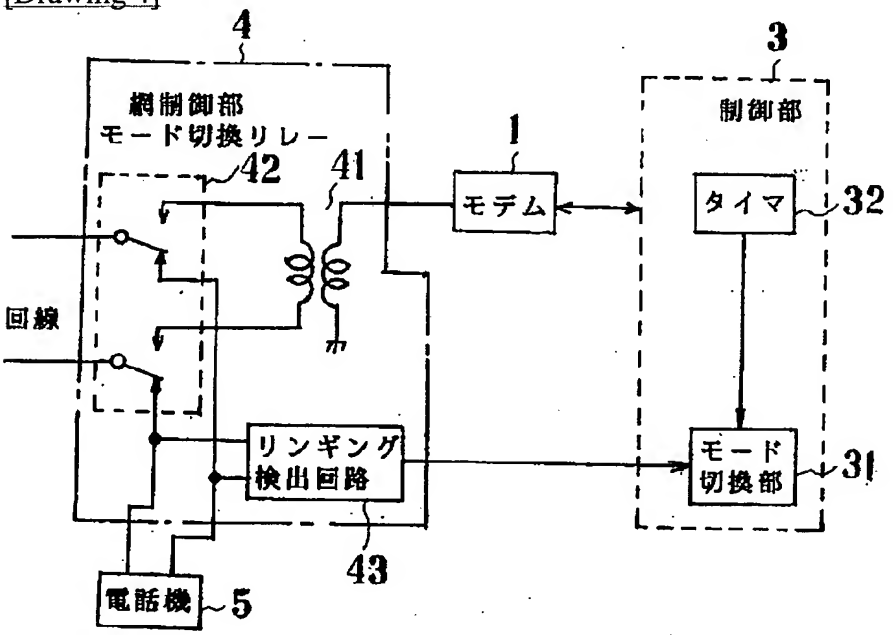
[Drawing 3]



[Drawing 2]



[Drawing 4]



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